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FIG. 2

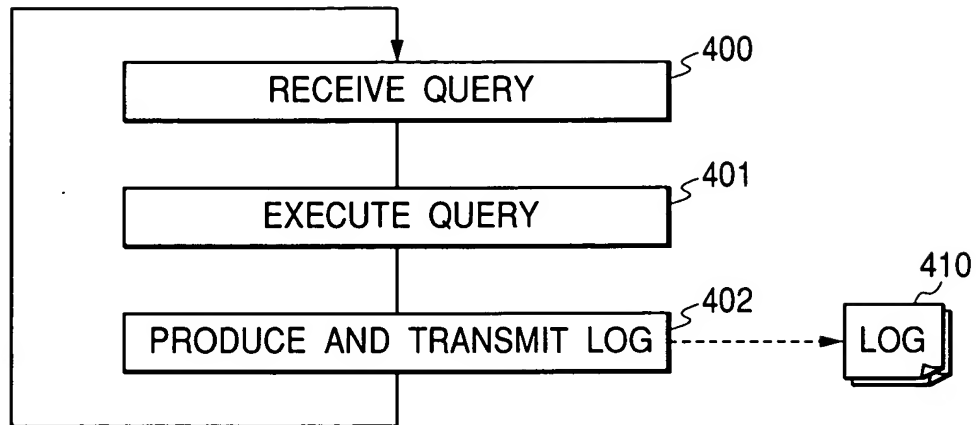
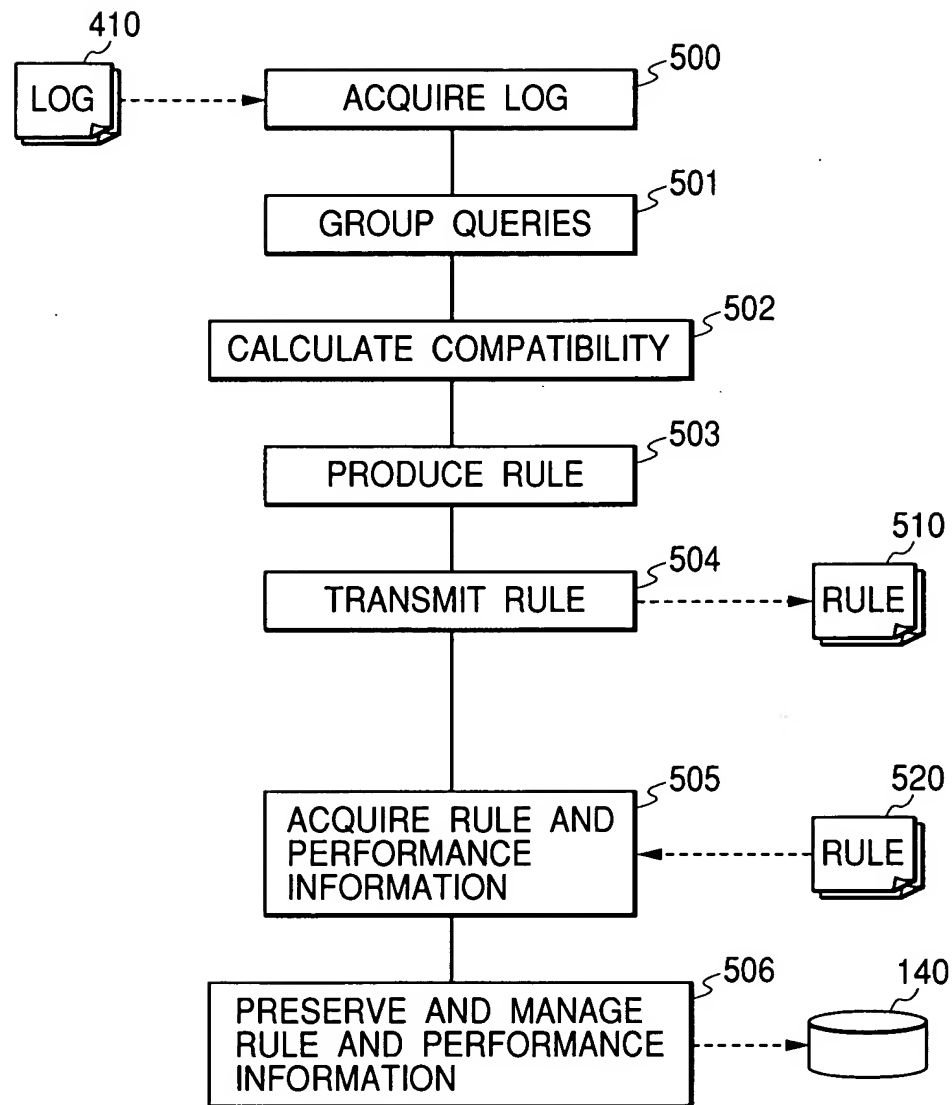


FIG. 3

	700	701	702	703	704
	CONTENTS OF QUERY	PROCESSING TIME	START TIME INSTANT	END TIME INSTANT	USER NAME
710	select ...	2200	19:05 22.02	19:05 24.22	Scott
720	select ...	1500	19:05 25.00	19:05 26.50	John

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FIG. 4



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FIG. 5A

EXAMPLE OF GROUPING 1

#	TEMPLATE	CONTENTS OF QUERY
1	A	select a from A where b > 2
		select a, b from A
2	B	select a from B where c > 3
		select a, c from B where b > 3

FIG. 5B

EXAMPLE OF GROUPING 2

#	TEMPLATE	CONTENTS OF QUERY
1	{a}, {A}	select a from A where b > 2
		select a from A
2	{a, c}, {A}	select a, c from A where c > 3
		select a, c from A where d > 3

FIG. 5C

EXAMPLE OF GROUPING 3

#	TEMPLATE	CONTENTS OF QUERY
1	{a}, {A}, {b}	select a from A where b > 2
		select a from A where b > 30
2	{a}, {A}, {c}	select a from A where c > 3
		select a from A where c > 5

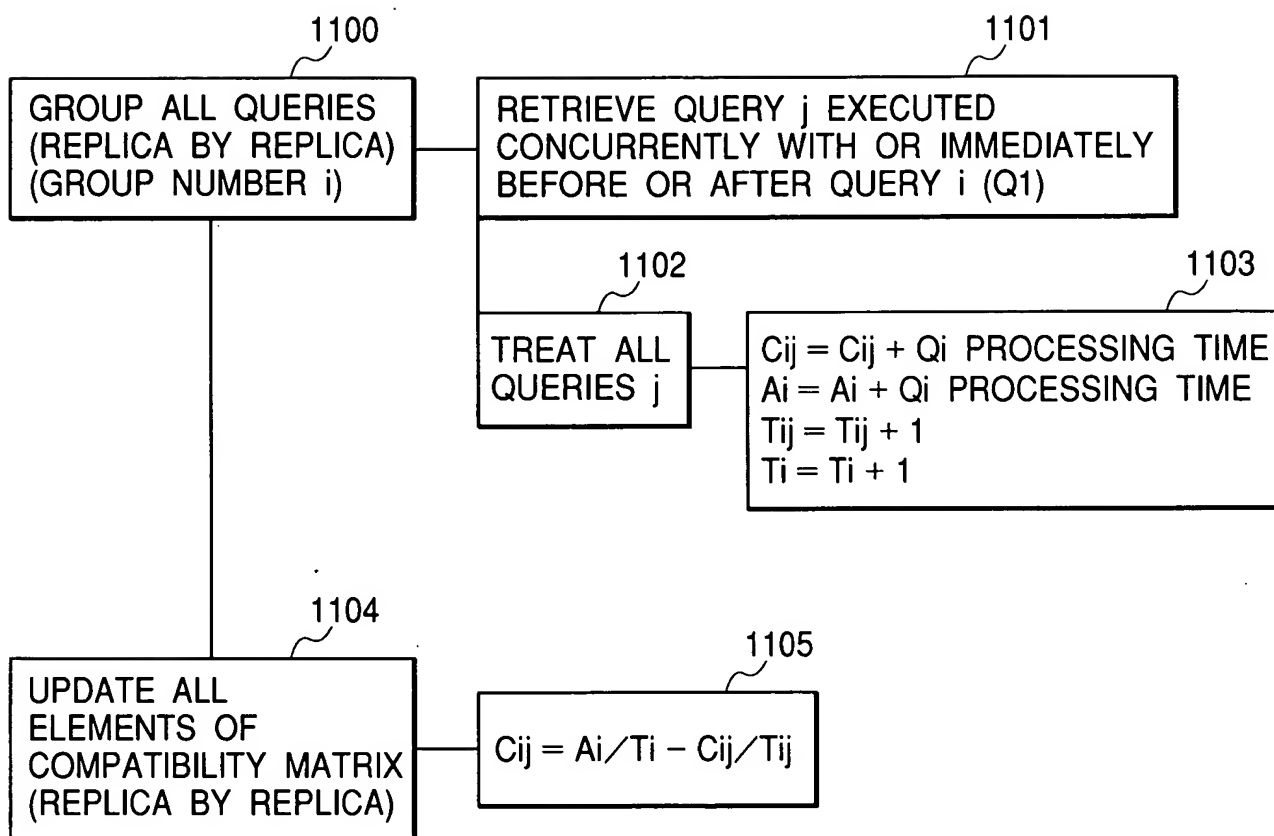


FIG. 7B

Diagram illustrating a matrix structure 810. The matrix has rows labeled Q1, Q2, ..., Qj, ..., Qn and columns labeled T1, ..., Tij, ..., Tn. The matrix is divided into four quadrants by the row Tij and the column Tij. The top-left quadrant is labeled 811, the top-right quadrant is labeled 812, the bottom-left quadrant is labeled 813, and the bottom-right quadrant is labeled 814. The element Tij is highlighted in the bottom-right quadrant.

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FIG. 8



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FIG. 9A

PRODUCING RULE FOR COMPATIBILITY BETWEEN QUERIES

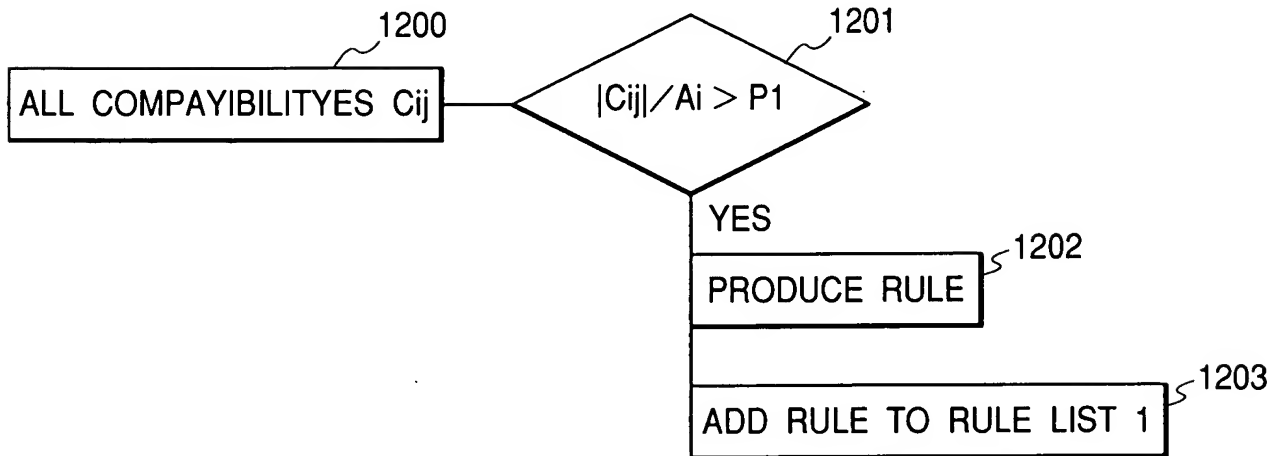
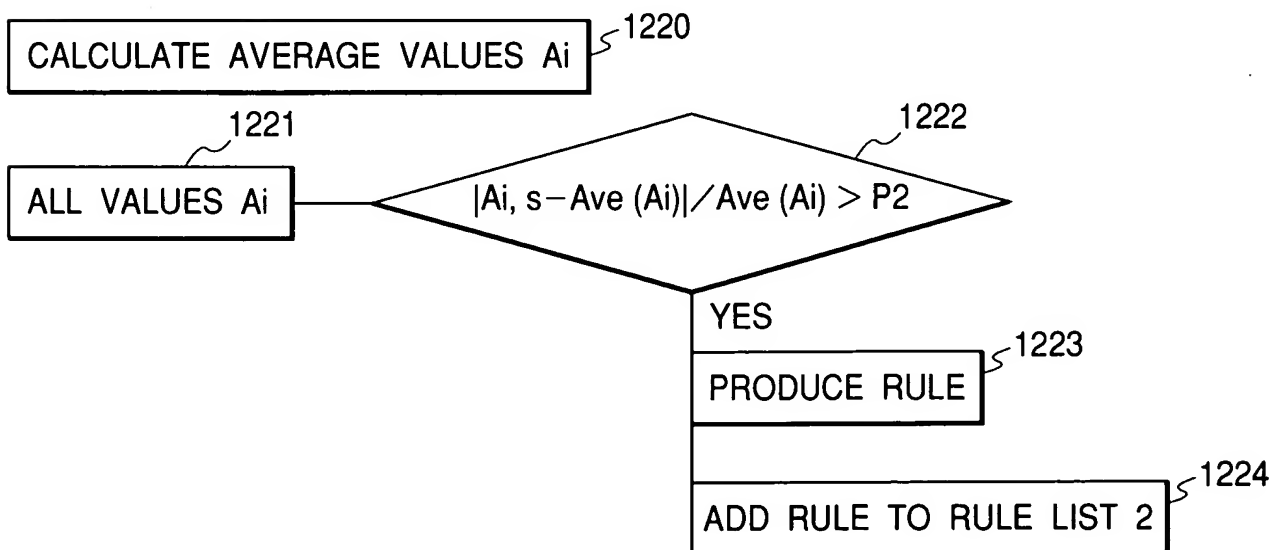


FIG. 9B

PRODUCING RULE FOR COMPATIBILITY BETWEEN QUERY AND SERVER



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FIG. 10A

RULE LIST 1
(RULE FOR COMPATIBILITY BETWEEN QUERIES)

1911 CONDITION	1912 COMPATIBILITY VALUE	1913 FREQUENCY
1914 Q1, Q2	20	0
Q1, Q7	10	0
...

1910

FIG. 10B

RULE LIST 2
(RULE FOR COMPATIBILITY BETWEEN QUERIES)

1931 CONDITION	1932 COMPATIBILITY VALUE	1933 FREQUENCY
1934 Q1, S2	20	0
Q1, S4	-10	0
...

1930

FIG. 11A

COMPATIBILITY MATRIX

801 {

	Q1	Q2	...	Qj	...	Qn	
Q1							A11
...							...
Qi				Cij			Ai1
...							...
...							...
Qn							An1

802

800

803

804

FIG. 11B

CALL MATRIX

811 {

	Q1	Q2	...	Qj	...	Qn	
Q1							T11
...							...
Qi				Tij			Ti1
...							...
...							...
Qn							Tn1

812

810

813

814

REPLICA 2

	Q1	Q2	...	Qj	...	Qn	
Q1							A12
...							...
Qi				Cij			Ai2
...							...
...							...
Qn							An2

REPLICA 3

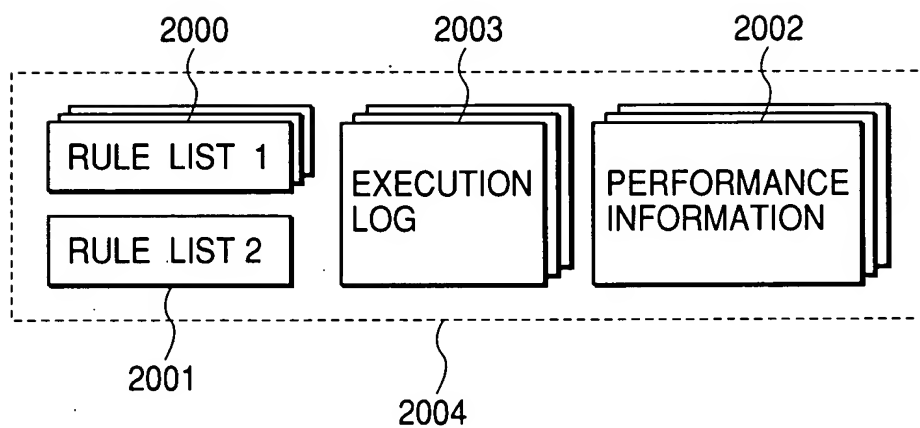
	Q1	Q2	...	Qj	...	Qn	
Q1							A13
...							...
Qi				Cij			Ai3
...							...
...							...
Qn							An3

	Q1	Q2	...	Qj	...	Qn	
Q1							T12
...							...
Qi				Tij			Ti2
...							...
...							...
Qn							Tn2

	Q1	Q2	...	Qj	...	Qn	
Q1							T13
...							...
Qi				Tij			Ti3
...							...
...							...
Qn							Tn3

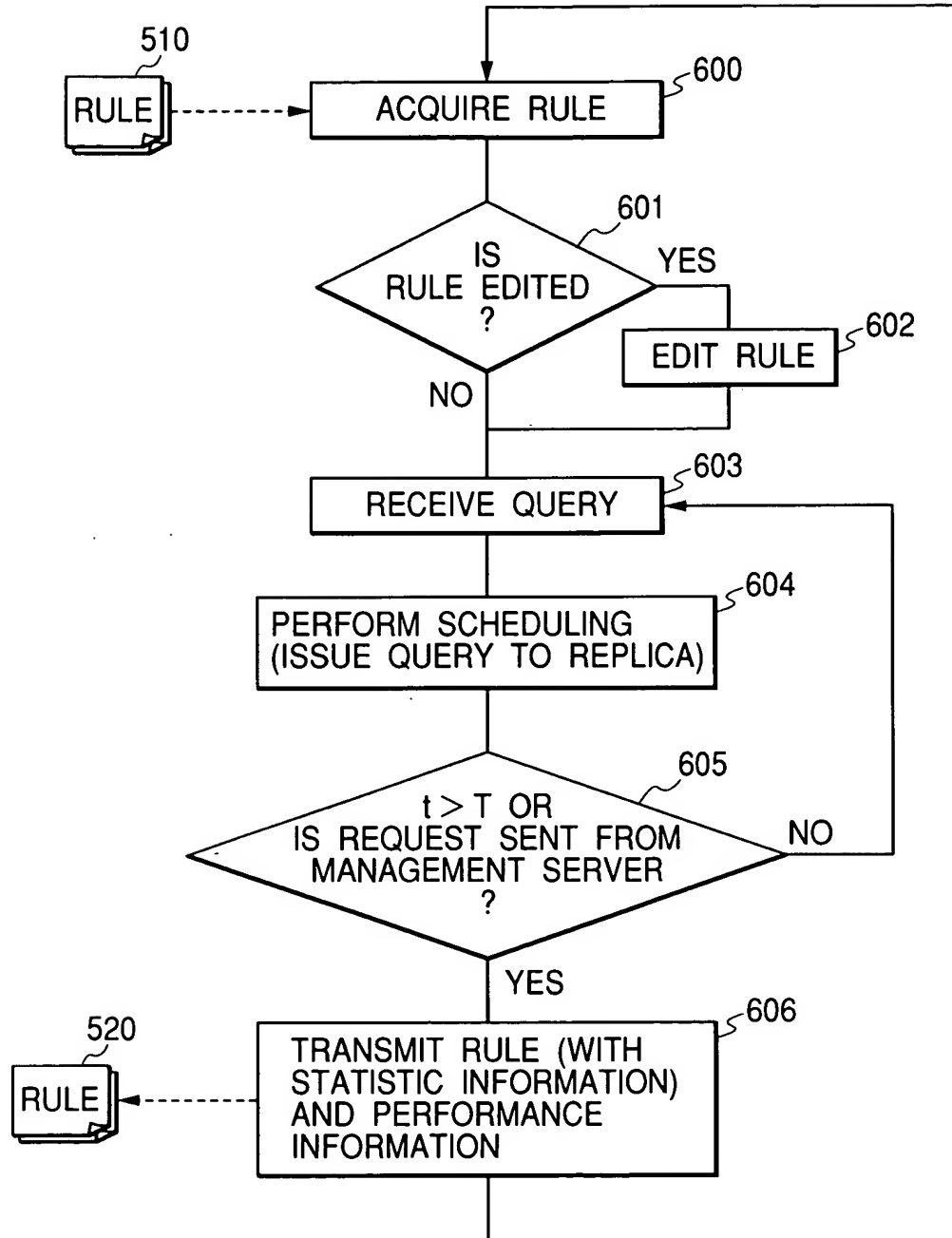
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FIG. 12



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FIG. 13



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FIG. 14

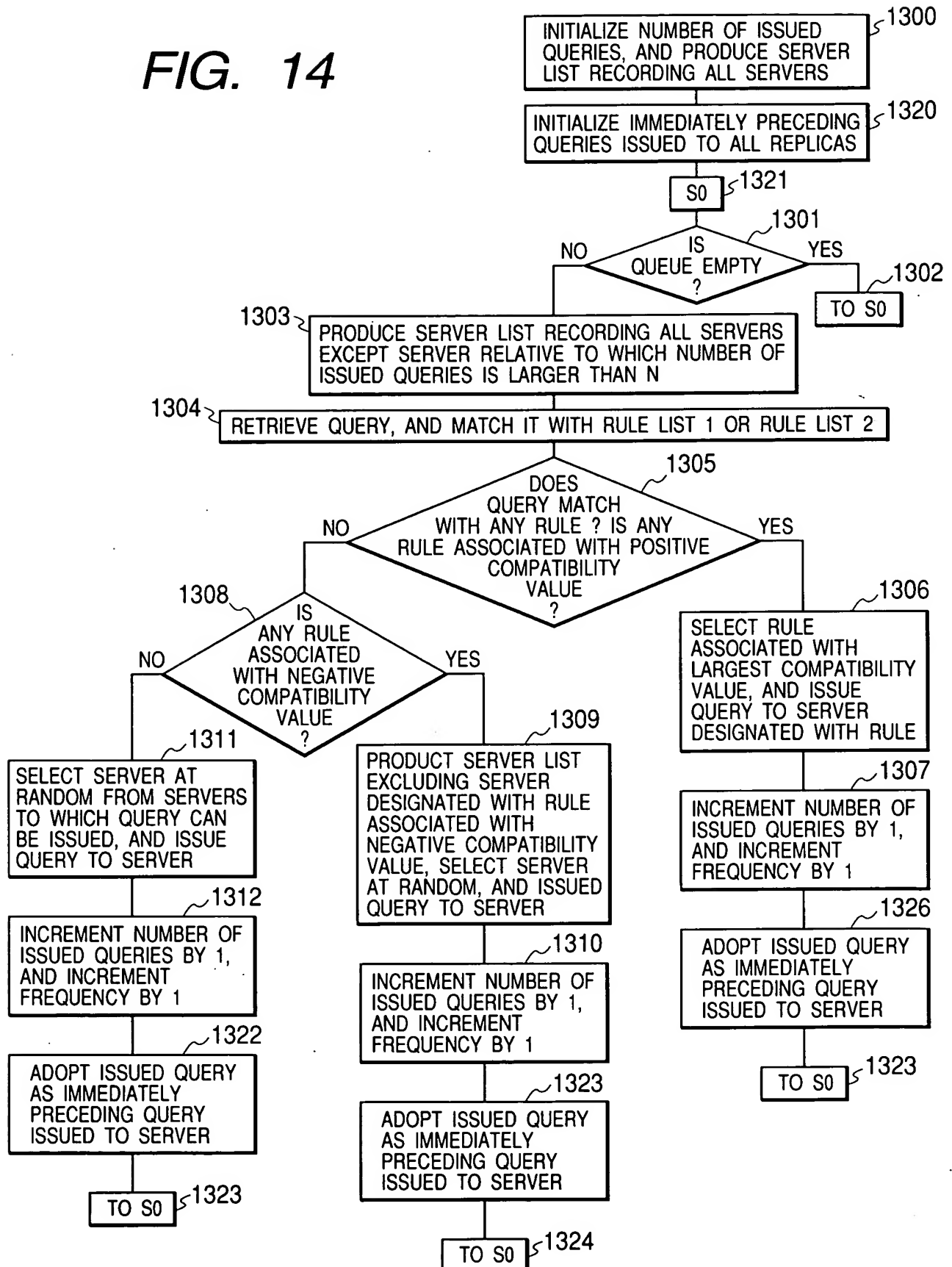


FIG. 15A

CORRELATION MATRIX

		2102						
		U1	U2	...	Uj	...	Un	
2101	U1							A1

	Ui				Cij			Ai

	Un							An
		2100						

FIG. 15B

CALL MATRIX

		2112						
		U1	U2	...	Uj	...	Un	
2111	U1							T1

	Ui				Tij			Ti

	Un							Tn
		2110						

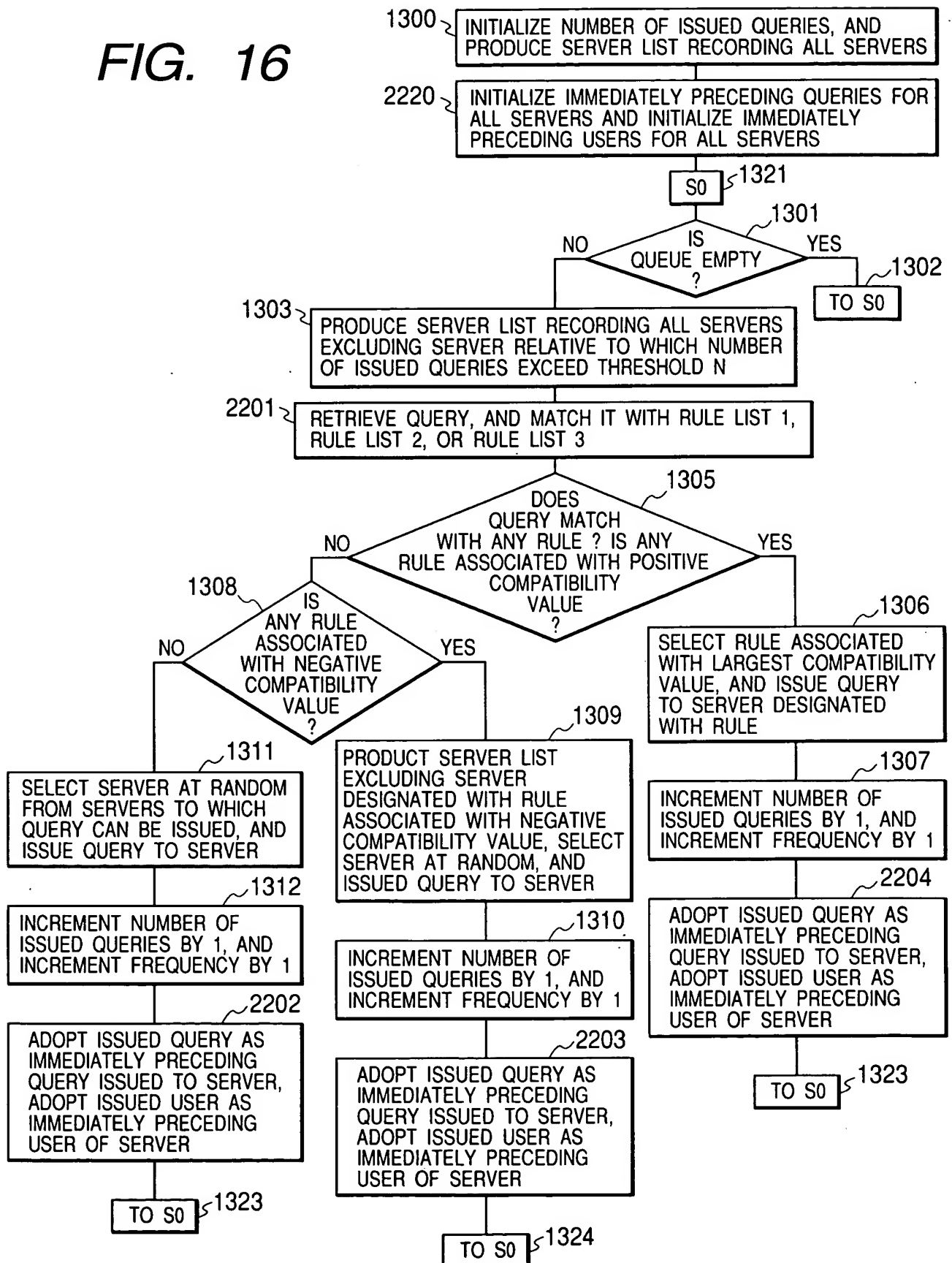
FIG. 15C

RULE LIST 3
(RULE FOR COMPATIBILITY BETWEEN USERS)

2131		2132		2134
2133		CONDITION	COMPATIBILITY VALUE	FREQUENCY
		U1, U2	20	0
		U1, U4	-10	0
	
		2130		

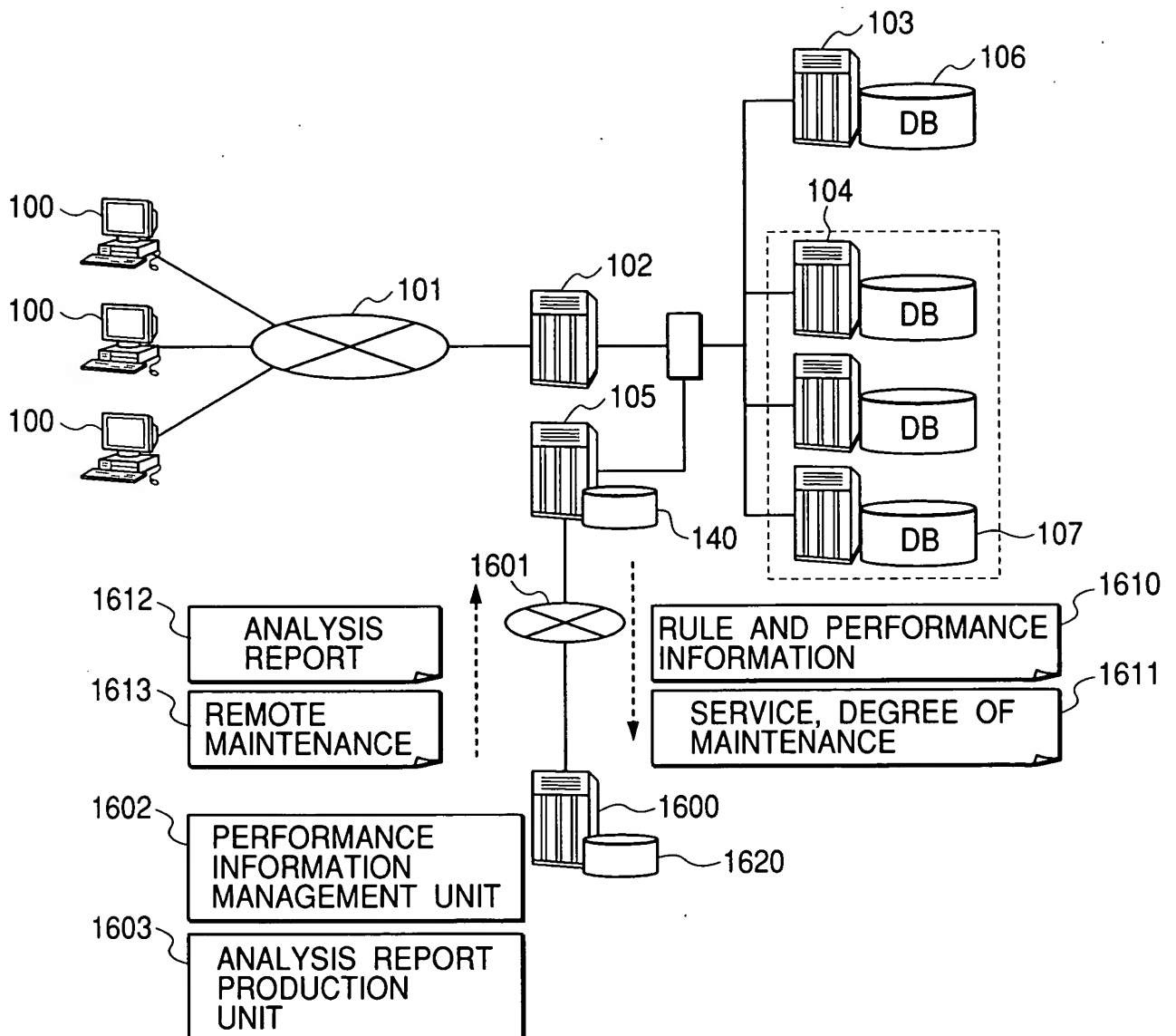
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FIG. 16



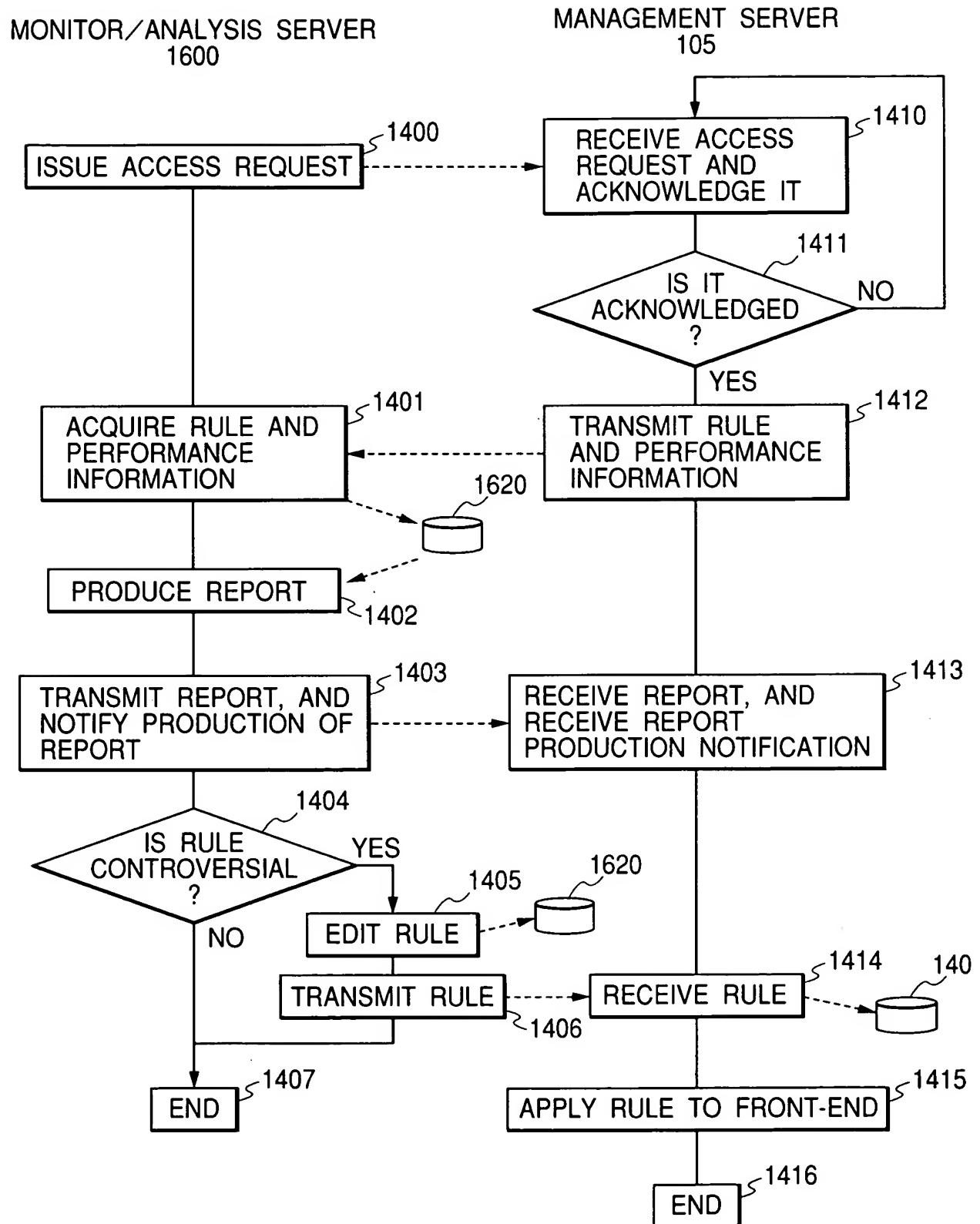
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FIG. 17



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FIG. 18



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FIG. 19

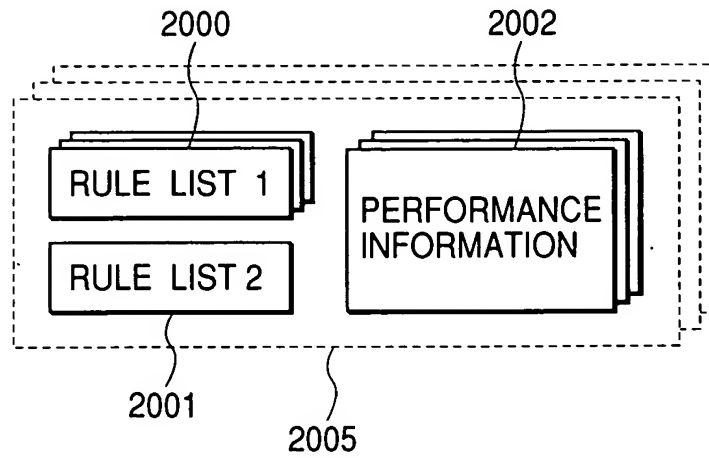


FIG. 20

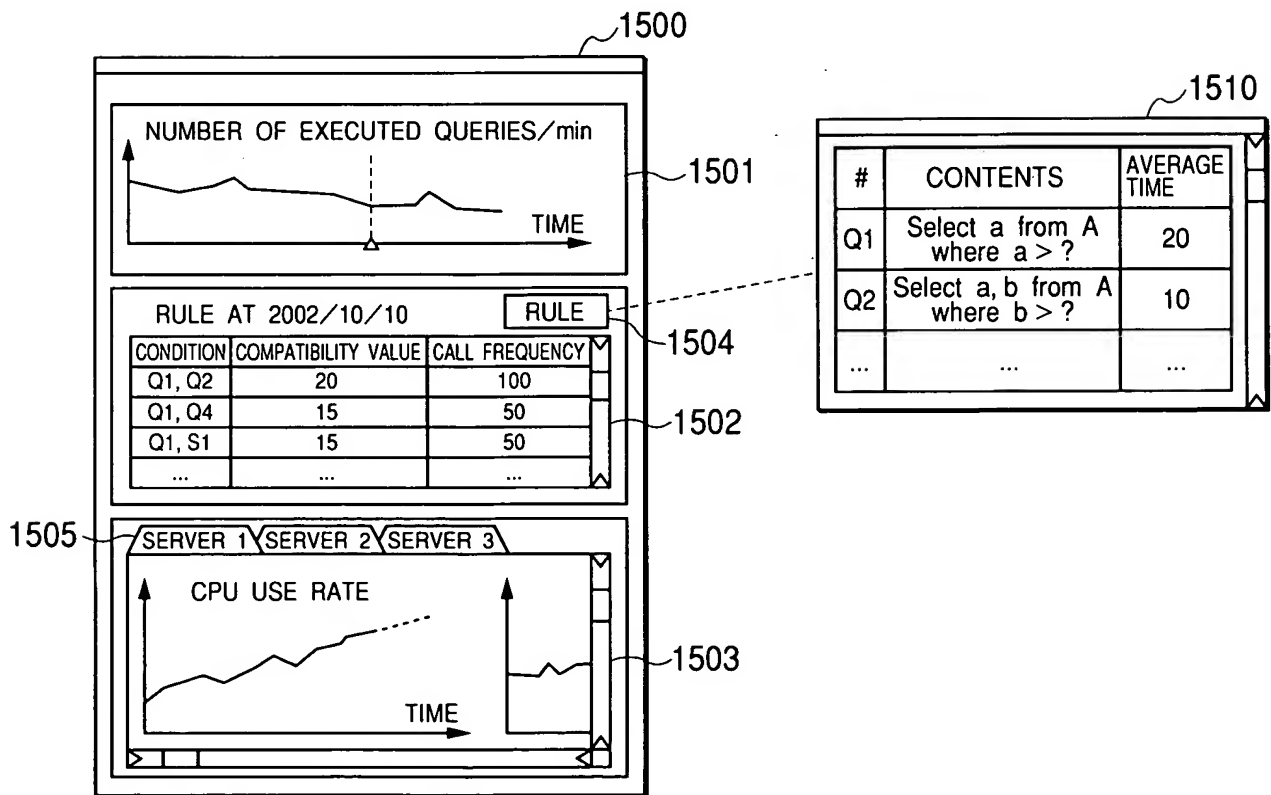
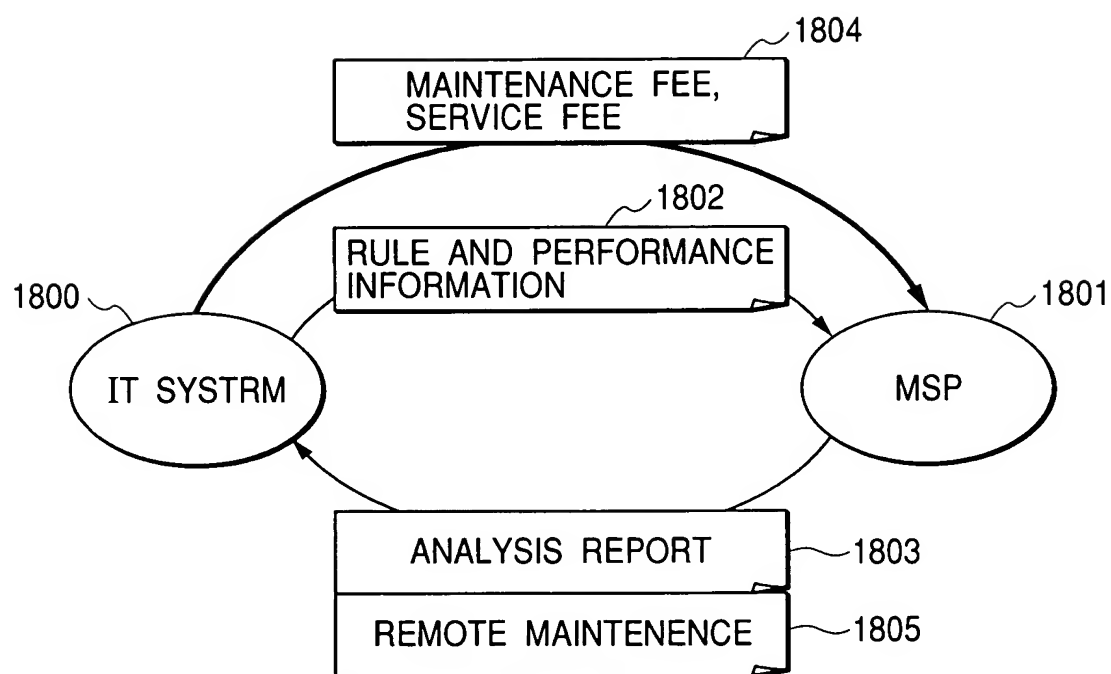
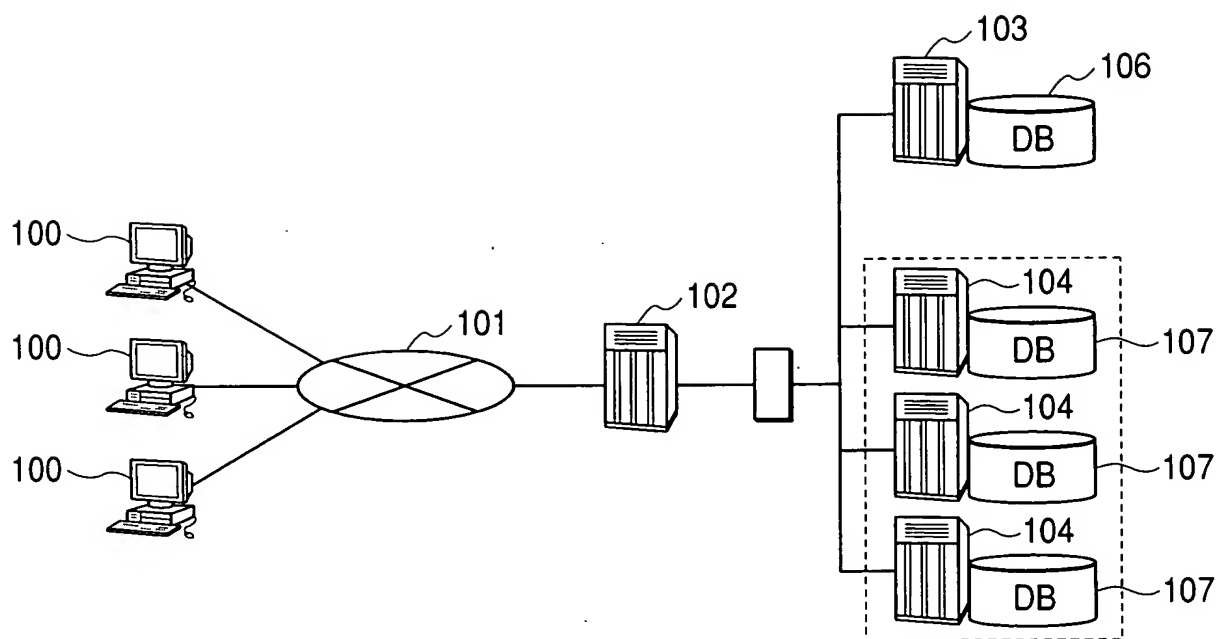


FIG. 21



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FIG. 22



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FIG. 23

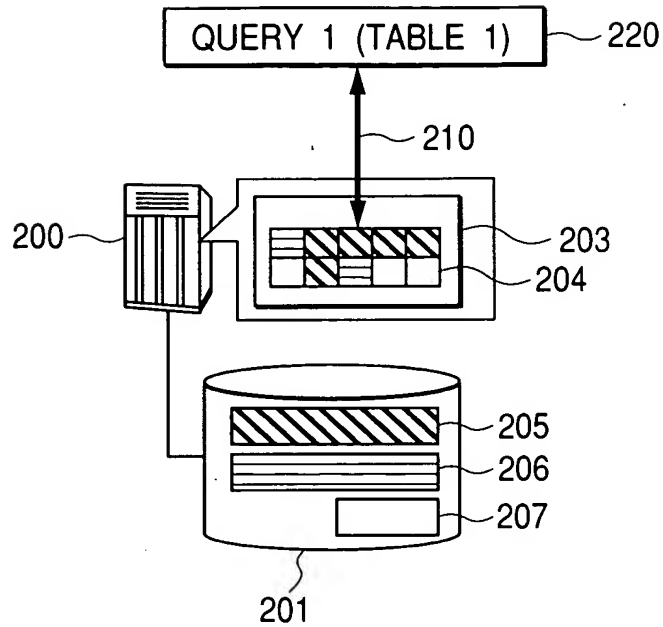


FIG. 24A

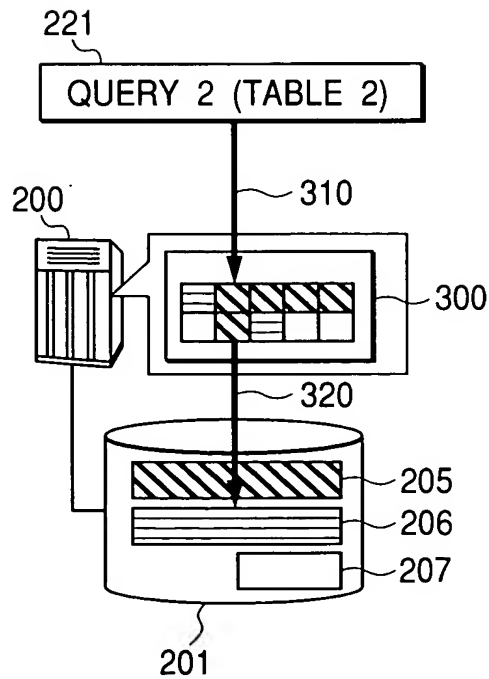


FIG. 24B

